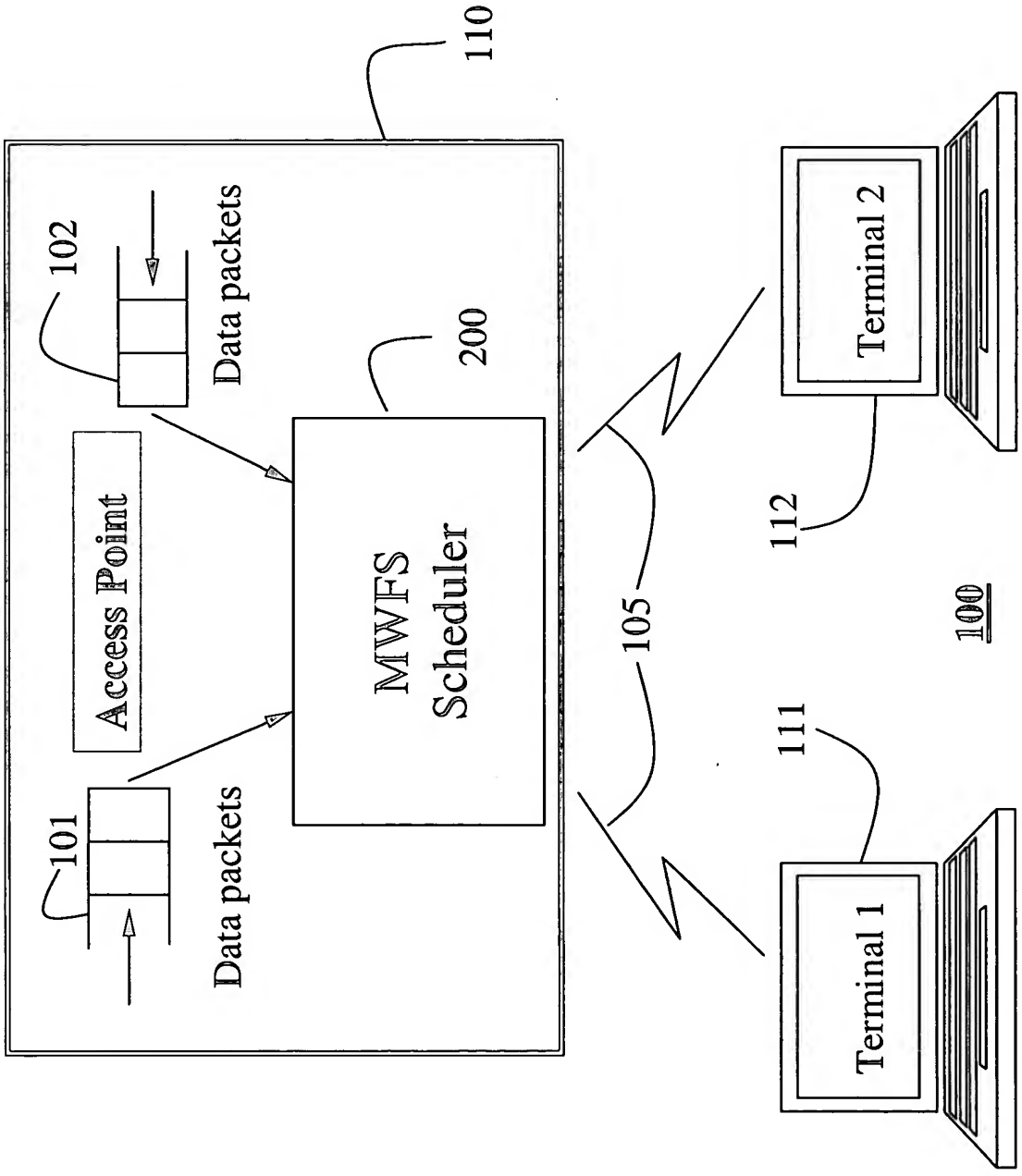
110
102
Data packets
200
Access Point
MWFS
Scheduler
101
Data packets
105
Terminal 2
112
111
Terminal 1
100

Fig. 1A

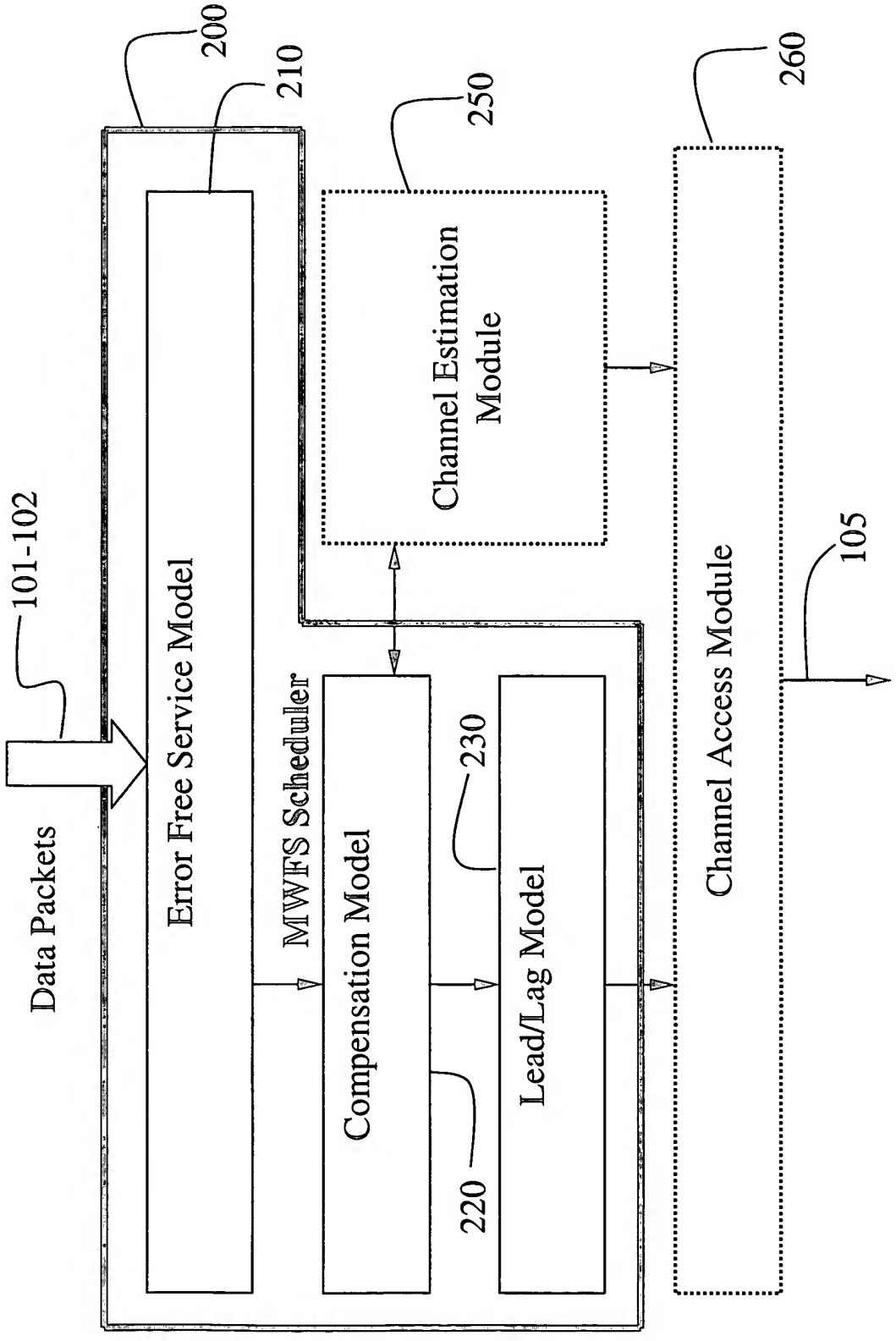
200
210
250
260
Channel Estimation Module
101-102
Data Packets
Error Free Service Model
MWFS Scheduler
Compensation Model
230
Lead/Lag Model
220
Channel Access Module
105

Fig. 1B

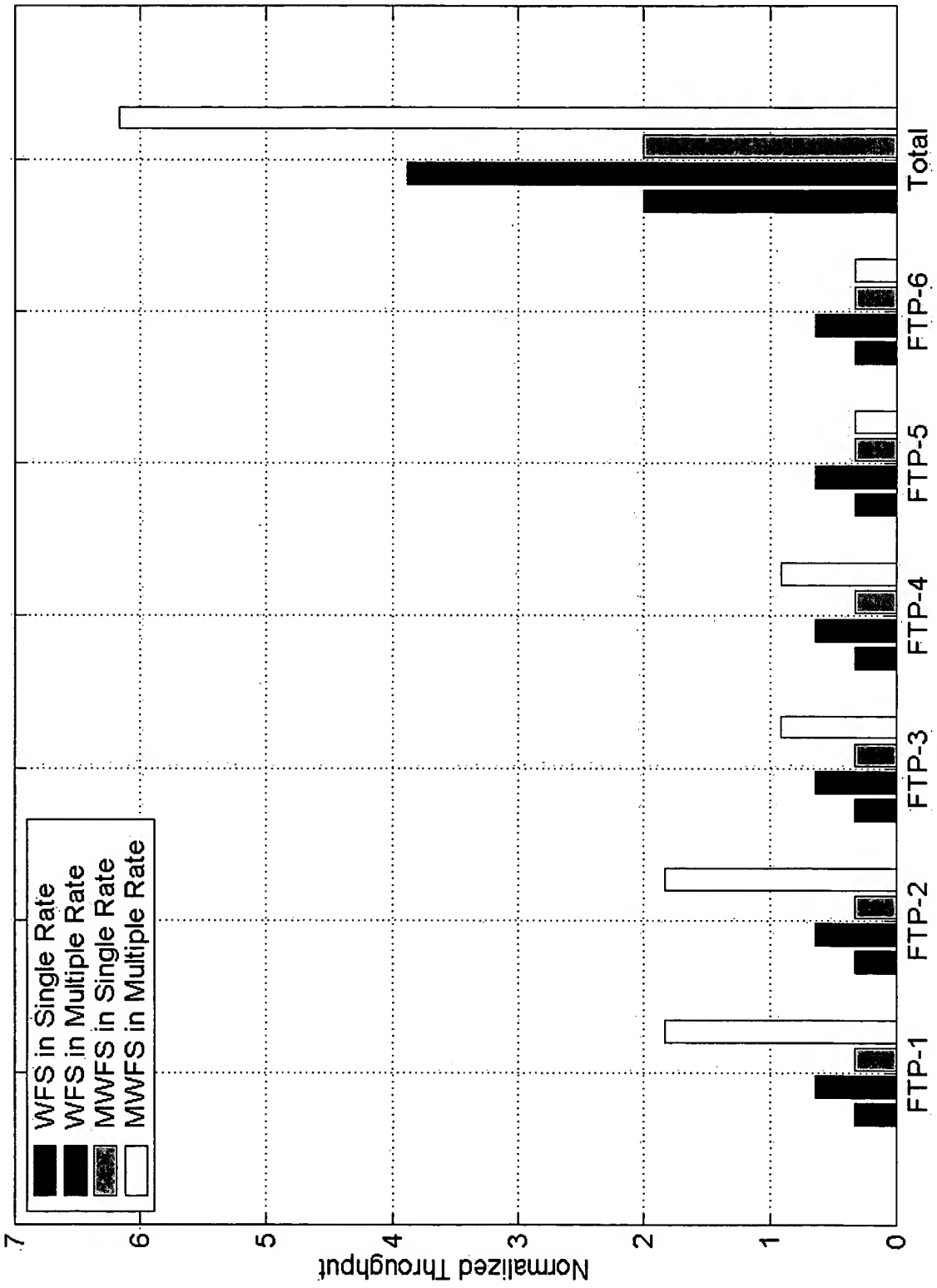
WFS in Single Rate
WFS in Multiple Rate
MWFS in Single Rate
MWFS in Multiple Rate
Normalized Throughput
0
1
2
3
4
5
6
7
FTP-1
FTP-2
FTP-3
FTP-4
FTP-5
FTP-6
Total

Fig. 2

Traffic Sources	$Delay^{avg}$		$Delay^{max}$		$Delay^{dev}$		$Buffer^{avg}$	
	WFS	MWFS	WFS	MWFS	WFS	MWFS	WFS	MWFS
MMPP-1	2.068	2.393	17.200	17.571	2.435	1.857	13.400	13.429
MMPP-2	1.381	0.361	13.200	2.143	1.709	0.311	12.600	7.268
Poisson-1	0.719	0.913	6.800	7.857	0.864	0.985	5.404	6.143
Poisson-2	0.588	0.269	6.000	1.000	0.725	0.212	5.210	4.000
CBR-1	11.464	12.166	52.800	54.286	10.935	11.076	61.638	61.143
CBR-1	8.935	0.347	56.800	2.000	11.116	0.259	68.107	7.429

Fig. 3

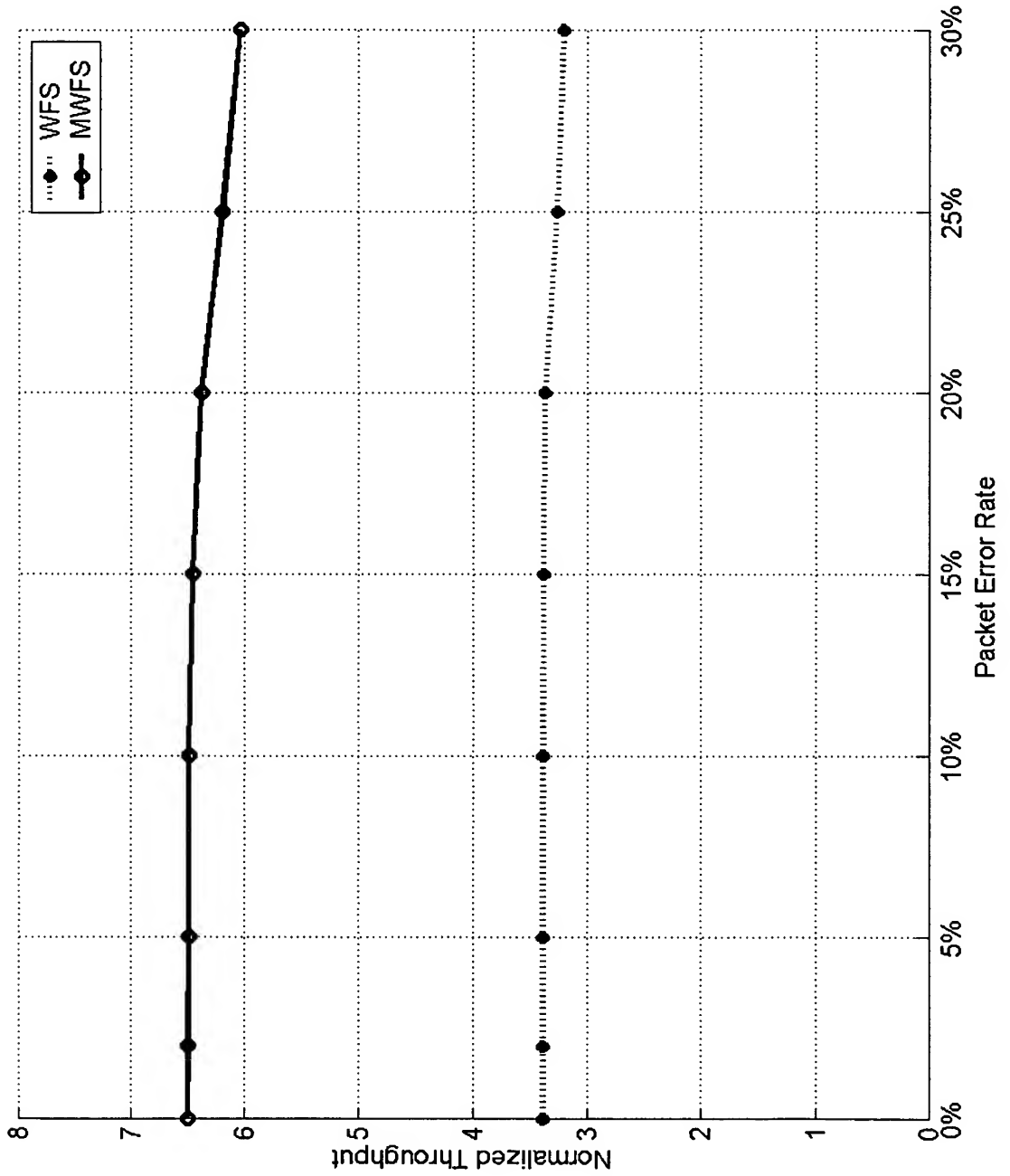
WFS
MWFS
Normalized Throughput
Packet Error Rate
0
1
2
3
4
5
6
7
8
0%
5%
10%
15%
20%
25%
30%

Fig. 4

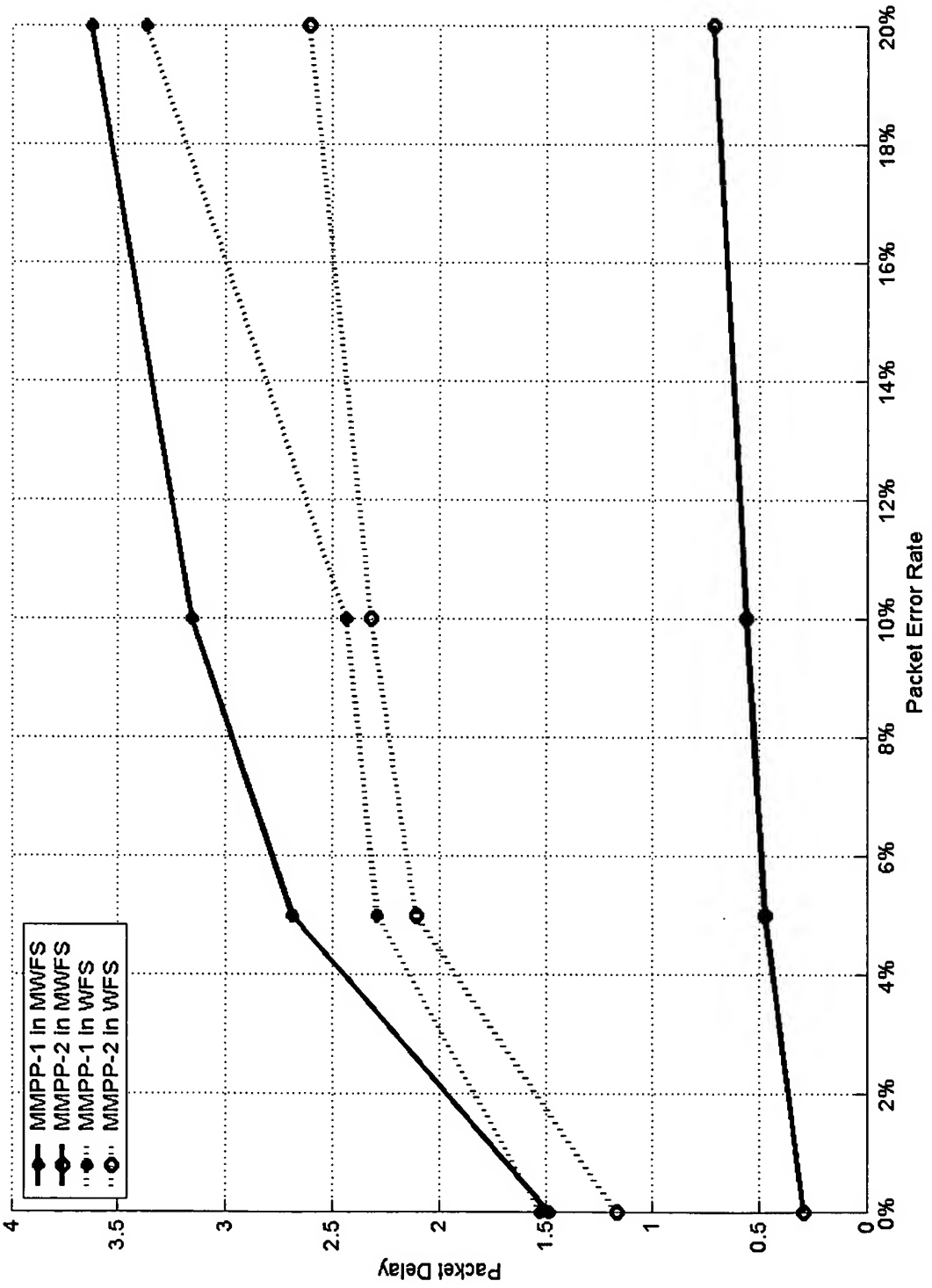
MMPP-1 in MWFS
MMPP-2 in MWFS
MMPP-1 in WFS
MMPP-2 in WFS
Packet Delay
Packet Error Rate
0
0.5
1
1.5
2
2.5
3
3.5
4
0%
2%
4%
6%
8%
10%
12%
14%
16%
18%
20%

Fig. 5

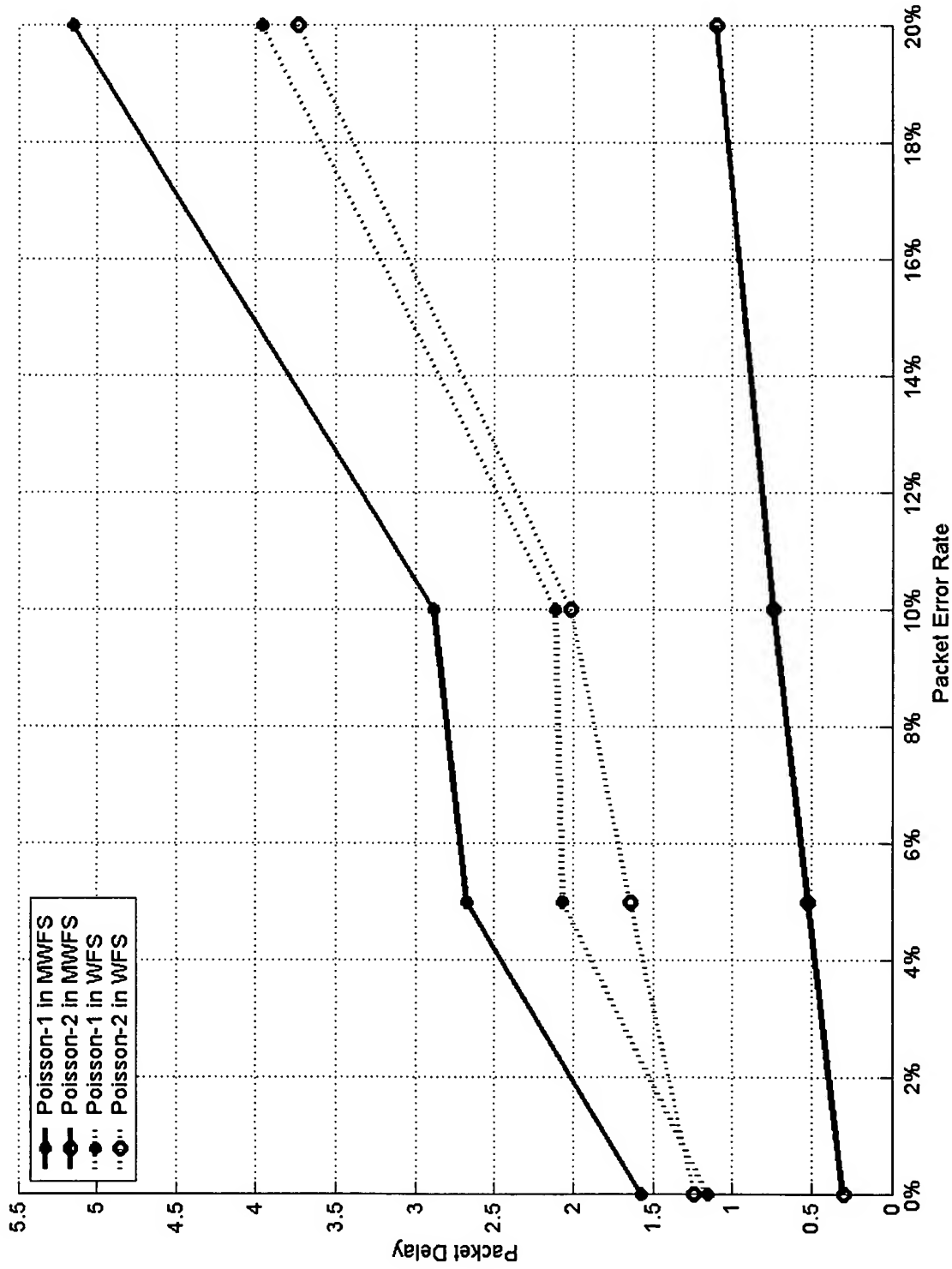
Poisson-1 in MWFS
Poisson-2 in MWFS
Poisson-1 in WFS
Poisson-2 in WFS
Packet Delay
Packet Error Rate
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
0%
2%
4%
6%
8%
10%
12%
14%
16%
18%
20%

Fig. 6